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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,722	12/27/2001	John F. Gray	047711-0285	7475

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EXAMINER

HAYES, MICHAEL J

ART UNIT	PAPER NUMBER
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3763

DATE MAILED: 11/04/2004

18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/033,722

Applicant(s)

GRAY ET AL.

Examiner

Michael J. Hayes

Art Unit

3763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-77 is/are pending in the application.
- 4a) Of the above claim(s) 8, 12, 24-26 and 35-69 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 70 is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-11, 13-23, 33, 34 and 71-77 is/are rejected.
- 7) ☒ Claim(s) 27-32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Newly submitted claim 69 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the new claim 69 recites an armature comprising radial struts that was not found in the originally elected independent claims. Original claims now recite a limitation concerning the clearance between the piston and piston channel. These claims are subcombinations usable together and therefore restrictable because the recited elements of one subcombination are not required in the other claimed subcombination.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 69 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 13 are rejected under 35 U.S.C. 102(b) as being anticipated by BUCHHOLTZ et al. (U. S. Patent No. 4,808,089). Buchholtz discloses a drive mechanism including a piston 17 in a piston channel, a coil 114 surrounding the piston channel near the outlet end, an armature 106, an outlet chamber receiving fluid from the piston channel, means

Art Unit: 3763

110 for urging the piston and armature to move, and a valve member 21 to allow fluid flow from the inlet to the outlet.

Claims 1, 2, 3, 4, 5, 6, 13-16, 21, 22, 33, 34, 76, and 77 are rejected under 35 U.S.C. 102(b) as being anticipated by SLETTENMARK (U. S. Patent No. 5,318,521). Slettenmark discloses a drive mechanism for delivery of infusion medium including a piston 4 in a piston channel, housing channel 5, armature 9 that is biased by magnet 6, coils 8 in a cup (fig. 1), outlet chamber distal a valve member 15 that is positioned with a reservoir in a housing for implantation in a patient (4:41-50).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 9-11, 23, and 71-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over SLETTENMARK as applied to claims 1, 6 above, and further in view of KENYON (U. S. Patent No. 4,684,368). Slettenmark discloses the claimed invention except for the housing cover member and means for urging as a spring. Kenyon teaches the use of a housing to support the drive mechanism and a spring for urging the armature and piston away from the outlet chamber. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Kenyon in the mechanism of Slettenmark in order to achieve biasing with an equivalent structure and to support the drive mechanism in a system for ready implantation in a

Art Unit: 3763

patient. Re claim 23 it is obvious to the skilled artisan to make a unitary structure out of that which was plural structures when the structure performs the same function in the same way.

With respect to the claimed dimensions recited in claims 71-73 it would be obvious to modify the prior art to establish particular clearances to achieve adequate pumping characteristics.

Applicant has not established that these dimensions are critical to the claimed invention or give unexpected results.

Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over SLETTENMARK as applied to claim 1 above, and further in view of WIJAY et al. (U. S. Patent No. 5,066,282). Slettenmark discloses the claimed invention except for damping means for reducing flow pressure variations. Wijay teaches the use of compressible member D, 16, at the outlet of a piston-driven pump to reduce pressure pulsations. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Wijay in the device of Slettenmark in order to smooth out pressure pulses to achieve a precise flow. Wijay is concerned with the same problem as Applicant in dampening pressure pulses from piston pumps.

Allowable Subject Matter

Claims 27-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 70 is allowable over the prior art of record.

Art Unit: 3763

Response to Arguments

Applicant argues that the prior art does not disclose the newly added limitations of the relationship of backflowing volume to refilling volume. The examiner maintains the rejections because this newly added limitations only describes forward flowing pumping characteristics, which is disclosed in the prior art.

Applicant argues that Slettenmark does not disclose an outlet chamber adjacent the coil. The examiner maintains the rejection because “adjacent” merely defines a relationship between elements that are near to each other. The prior art discloses this relationship.

Art Unit: 3763

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Hayes at (703) 305-5873. The examiner can usually be reached Monday -Thursday, 7:00-4:30, and on alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Lucchesi, can be contacted at (703) 308-2698. The fax number for submitting official papers is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mjh
1 November 2004



MICHAEL J. HAYES
PRIMARY EXAMINER